

and swalled by the gull if it is not harried or disturbed. However, even though a gull can carry a Skipjack *Pseudocaranx dentex* 15 cm in length it is unable to swallow it because of the depth of the fish's body. Furthermore because birds are extensively harried by other gulls, terns, Pelicans and cormorants the larger fish, over 15 cm in length, are usually lost to the Pelicans and cormorants.

Sometimes when a Pied Cormorant is ravaging a net it will surface with a fish in its beak. If the bird does not feel inclined to swallow it immediately, perhaps because it is gorged and cannot, the bird usually comes under attack from the gulls. Frequently the cormorant will shake its head, thereby dislodging the fish, which will be immediately seized by a gull.

Silver Gulls frequently try to take meshed fish from the top of the nets but invariably fail, presumably because the fish are too firmly meshed.

Caspian Tern *Sterna caspia*. This large tern generally remains above the flock of milling gulls and Crested Terns *Sterna bergii* and seldom dives on fish near the boats. It actively harries the Silver Gulls and Crested Terns and often obtains some of the larger fish which they drop. It does not normally seize discarded Blowfish but I have seen it do so under natural conditions, which contradicts my earlier results (Stranger 1970). I was also in error when I said that Silver Gulls and Crested Terns pick up Blowfish with their feet. Those birds, like the Caspian Tern, seize Blowfish with their beaks. Caspian Terns often try to wrest fish from the top of nets but invariably fail.

Crested Tern *Sterna bergii*. This species is the aerial rival of the Silver Gull and readily seizes any of the aforementioned fish except the Leatherjacket, Devil Fish and Blowfish. Very rarely it may seize and swallow a Blowfish, which contradicts my earlier findings (Stranger 1970).

Crested Terns can easily swallow Trumpeter up to 15 cm long and can manage to swallow fish up to 20 cm long. They are extensively harried by other birds and the larger fish are frequently dropped and lost. They never succeed in wresting fish from the nets.

Once when a Crested Tern emerged from a dive to catch a small Skipjack, I noticed that its beak was open, the mandibles having speared the fish about 1 cm apart. It then shook the fish free and secured it in its mouth.

Raven *Corvus coronoides*. This species does not benefit directly but scavenges around the various camps and moorings of the fishermen.

OCEANIC OBSERVATIONS

Fishing for Whitebait *Hyperlophus vittatus* along the oceanic beaches also provides easy meals for some of the birdlife. During this type of fishing, many hundreds of Whitebait are killed and float freely in the water where they are fed on by Silver Gulls and Crested and Caspian Terns. Wedge-tailed Shearwaters *Puffinus pacificus* will also attend such areas and they can be seen sweeping through the gulls and terns.

During crayfishing operations fish and animal offal is released into the sea and in the deeper waters oceanic birds are attracted to it. The Giant Petrel *Macronectes giganteus*, Yellow-nosed Albatross *Diomedea chlororhynchos*, and the Black-browed Albatross *Diomedea melanophrys* all scavenge the offal and

the Wilson Storm Petrel *Oceanites oceanites* will approach the boats very closely and feed on the smaller particles.

REFERENCE

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NOTES ON THE STATUS OF THE SKINK LIZARD *CTENOTUS LANCELINI*, ON LANCELIN ISLAND

By ROBERT BROWNE-COOPER, 9 Rankin Road, Shenton Park 6008
and BRAD MARYAN, 169 Egina Street, Mount Hawthorn 6016.

Lancelin Island is 9 hectares in area and is situated 110 kilometres north of Perth. It is the only known locality for the skink lizard *Ctenotus lanceolini*. After a recent visit to the island in search of this lizard we decided through this article to highlight problems concerning its conservation.

There are a number of reptiles that are island endemics along the Western Australian coast. Although each is restricted in distribution to the respective island where it occurs the majority are locally common. Several factors contribute to this "locally common" phenomenon. Ford (1963) suggested that the reduction in interspecific competition in lizards on islands has allowed for increased population densities, in particular on small islands where a single species has become dominant. On these, competition is greatly increased due to an overlap of ecological niches resulting in the local extinction of closely allied species. He illustrated this in *Egernia*: *E. kingii* occurred together with 2 smaller congeneric species on large islands but was the only species of *Egernia* on eight small islands. In recent times this isolation minimises pressure from human disturbance such as the destruction of habitat or the introduction of exotic plants and animals.

There are three Western Australian island endemic lizards gazetted "rare and endangered". Two are locally common: *Ctenotus angusticeps* (Browne-Cooper & Maryan 1990) and *Egernia stokesii aethiops* (Storr & Harold 1990). *Ctenotus lanceolini* is the third species listed as endangered. We considered it to be seriously threatened during our assessment on a field trip to the island on 6 October 1991. This was further substantiated during research into its relative abundance in previous years.

We visited the island with the intention of photographing this species. After a 5 hour search we failed to locate a single individual. We assumed conditions for activity to be optimum — a fine spring day with the temperature at 22°C. We did however observe all other skinks known to occur there, i.e. *Ctenotus fallens*, *Cyclodomorphus branchialis*, *Egernia bos* and *Morethia lineocellata*. On 2 previous visits (December 1981 and March 1983) we found it to be reasonably common and located ten individuals on each occasion. Ford (1963) mentioned that between 1959 and 1961 it was not uncommon

beneath slabs of limestone. Comparing our lack of success in finding *C. lanceolini* during our recent visit with the successes of the previous visits mentioned above, we infer that there has been a substantial decrease in its members.

Wilson & Knowles (1988) mention this lizard relies on the exfoliated limestone slabs for shelter. We also found this to be so during our previous visits, however this apparent dependence on limestone slabs probably reflects the lizards utilising the most convenient and safe shelter sites available to them. While on the island this time we observed a heavy cover of introduced grasses and thistles which was encroaching on to the limestone habitat. The impact of this large infestation of exotic vegetation on the numbers of *C. lanceolini* can only be guessed at. The examination of aerial photographs may reveal noticeable hydrogeographic changes on the island enabling sand to accumulate over the limestone where grasses could establish themselves and spread. The process of accumulating sand may be caused by a combination of the seasonal burrowing activities of nesting seabirds and the wind. During summer when the introduced grasses dry there is a greater risk of fire which would threaten both the island's ecosystem and individuals of *C. lanceolini*. This risk was clearly demonstrated to us while witnessing members of the public light a campfire on the beach.

The Lancelin area is very popular for recreation and the island is easily accessible from the mainland. Many people visit it and this increases human disturbance which in turn may have a further detrimental impact on the island's ecosystem. Kennedy (1990) recognised this problem stating that "although Lancelin Island is a nature reserve, access to it is not restricted and its close proximity to Perth and the mainland generally places *C. lanceolini* at further risk from such factors as habitat disturbance".

Ctenotus lanceolini is formally recognised as threatened and is listed on Schedule 1 of the Wildlife Conservation Act as fauna that is likely to become extinct. When a problem is recognised concerning the conservation of protected fauna in Western Australia the responsibility to act lies with the Department of Conservation and Land Management (CALM). We have informed CALM of this and as a result they have recognised the urgency of the problem and have initiated a study. In order to establish the conservation status of *C. lanceolini* a thorough ecological and census survey is needed to determine this lizard's seasonal and relative abundance. Apart from its original description we know very little of its ecology and biology. A survey could greatly increase our knowledge and understanding of *C. lanceolini* so an improved management can be implemented.

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